

Title (en)
PROBE CARD AND METHOD FOR MANUFACTURING SAME

Title (de)
NADELKARTE UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
CARTE DE SONDE ET SON PROCEDE DE FABRICATION

Publication
EP 1845382 A4 20100623 (EN)

Application
EP 05814723 A 20051209

Priority
• JP 2005022614 W 20051209
• JP 2005024117 A 20050131

Abstract (en)
[origin: EP1845382A1] There provides a method of producing a probe card where a manufacturing process is simplified so that energy can be saved and resources can be saved. In addition, there provides a probe card which can flexibly deal with reduction in the pitch of terminals, variation in the arrangement of terminals, frequent change in these, and the like, and a producing method of the same. Further, there provides a method of producing a probe card where a sintering process is not required for each ejection of a droplet and fine bumps that become probes can be formed in a short time. Furthermore, there provides a probe card which has cushioning effects against pressure when the probe card makes contact with a semiconductor chip, so that uniform contact is made possible, and a producing method of the same. A liquid material containing metal ultra-fine particles is ejected onto a substrate in accordance with a fine inkjet process, and fine bumps are formed on the substrate.

IPC 8 full level
G01R 1/073 (2006.01); **H01L 21/66** (2006.01)

CPC (source: EP US)
G01R 1/06711 (2013.01 - EP US); **G01R 1/06755** (2013.01 - EP US); **G01R 3/00** (2013.01 - EP US); **Y10T 29/49126** (2015.01 - EP US)

Citation (search report)
• [Y] JP 2002340933 A 20021127 - SEIKO EPSON CORP
• [Y] EP 1477230 A1 20041117 - NAT INST OF ADVANCED IND SCIEN [JP]
• [Y] JP H10140325 A 19980526 - VACUUM METALLURG CO LTD
• [Y] JP 2003218149 A 20030731 - SEIKO EPSON CORP
• [A] US 6402012 B1 20020611 - BOLDUC TIMOTHY DAVID [US]
• [A] US 6114187 A 20000905 - HAYES DONALD J [US]
• [A] DE 3107079 A1 19820909 - SIEMENS AG [DE]
• [A] US 5877556 A 19990302 - JENG JEN-HUANG [TW], et al
• [A] SAWYER B FULLER ET AL: "Ink-Jet Printed Nanoparticle Microelectromechanical Systems", JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 11, no. 1, 1 February 2002 (2002-02-01), XP011034684, ISSN: 1057-7157
• [A] "Electronic Packaging Materials Science VIII", vol. 390, 1995, ISBN: 1558992936, article M D SNYDER AND R LASKY: "Deposition of molten eutectic solder using jet printing techniques", pages: 201 - 211, XP002581449
• See references of WO 2006080146A1

Cited by
KR100971732B1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1845382 A1 20071017; EP 1845382 A4 20100623; EP 1845382 B1 20130522; CN 101142487 A 20080312; CN 101142487 B 20100526; JP 2006208324 A 20060810; JP 4798557 B2 20111019; US 2008111567 A1 20080515; US 7683646 B2 20100323; WO 2006080146 A1 20060803

DOCDB simple family (application)
EP 05814723 A 20051209; CN 200580049139 A 20051209; JP 2005022614 W 20051209; JP 2005024117 A 20050131; US 88322605 A 20051209